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ABSTRACT

For over half a century, researchers have attempted to specify the effects of childrearing in socially depriving environments on child development, specifically studying the development of children from institutions found to provide few social and emotional interactions between caregivers and children and comparing findings to those for home-reared children. This paper presents a conceptual analysis of social deprivation that can be applied systematically to institutional care environments, to provide the basis for a quantitative component to the description of these environments. The paper begins with a narrative depiction of the social environments typical of socially depriving orphanages. This section is followed by a brief statement of the importance of investigating social deprivation and an acknowledgment of the complexities of studying this area. Next, a conceptualization of social deprivation and its components is presented, then a history of empirical study of the effects of social deprivation in foreign orphanages, and finally the methodology of the present paper. The conceptualization of social deprivation will then be applied to research in this area as a method for organizing and discussing social deprivation in varying social environments, and its correlates to outcomes in various domains of child development. Summaries of sociocultural theory, attachment theory, and social learning theory follow, accompanied by their predictions and explanations for some of the outcomes from research in this area. The paper ends with an introduction to the "theory of development in social environments," which integrates sociocultural theory, attachment theory, and social learning theory to create a comprehensive theory for the study of development of children in varying social environments. (Contains 38 references.) (Author/HTH)

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Running head: EARLY SOCIAL DEPRIVATION IN FOREIGN ORPHANAGES

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The Effects of Early Social Deprivation on Children Reared in Foreign Orphanages

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Abstract

This paper presents a conceptual analysis of social deprivation that can be applied systematically to institutional care environments. This analysis provides the basis for a quantitative component to the description of these environments. The addition of quantitative descriptions can enhance the study of the effects of these environments, which up until this time has been described primarily through subjective descriptions. The paper begins with a narrative depiction of the social environments typical of socially depriving orphanages. This section is followed by brief statement of the importance of investigating social deprivation and an acknowledgment of the complexities of studying this area. Next, a conceptualization of social deprivation and its components is presented, then a history of empirical study of the effects of social deprivation in foreign orphanages, and finally the methodology of the present paper. The conceptualization of social deprivation will then be applied to research in this area as a method for organizing and discussing social deprivation in varying social environments, and its correlates to outcomes in various domains of child development. Summarizations of sociocultural theory, attachment theory, and social learning theory follow accompanied by their predictions and explanations for some of the outcomes from research in this area.

The paper ends with an introduction to the "theory of development in social environments," which integrates sociocultural theory, attachment theory, and social learning theory to create a comprehensive theory for the study of development of children in varying social environments.

THE EFFECTS OF EARLY SOCIAL DEPRIVATION ON CHILDREN REARED IN FOREIGN ORPHANAGES

For over half of a century, researchers have attempted to specify the effects of childrearing in socially depriving environments on child development. Specifically, they have studied the development of children from institutions found to provide few social and emotional interactions between caregivers and children and have compared it with that of home-reared children (Provence & Lipton, 1962; Sloutsky, 1997; Spitz, 1945, 1950; Tizard, Cooperman, Joseph, & Tizard, 1972; Tizard & Hodges, 1978; Tizard & Joseph, 1970; Tizard & Rees, 1974, 1975; Tizard & Tizard, 1971; Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998a,b). Social and emotional interactions are theorized to be essential for children to develop normally. Thus, limits in these types of interactions are predicted to lead to atypical development. In support of this theory, researchers have found that children reared in socially depriving institutions develop differently than home-reared children. In fact, much of our knowledge about the effects of social deprivation has come from studies of institutions in which children received proper nutrition and medical care but in which they experienced social and emotional neglect. Not surprisingly, these children demonstrated fewer deficits in their development than were found in past research with children who experienced both physical and social deprivation. However, the persistent influence of social deprivation was still evident; children from institutions where they experienced only social and emotional neglect were less competent than their home-reared peers in social interactions (e.g., Tizard & Rees, 1975) as well as in cognitive function (e.g., Sloutsky, 1997).

Findings from studies of institutionalized children who experienced social deprivation point to the key role the social environment plays on child development. The developmental deficits found in such children can be more readily attributed to the lack of appropriate social interactions than to material or physical deprivation (e.g., Spitz, 1945; Tizard & Rees, 1974, 1975; Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998a,b). However, the effects of various degrees of social deprivation are not readily ascertainable due to the difficulty in comparing researchers' qualitative and narrative accounts of the social environments within each study.

Purpose

The purpose of this paper is to present a conceptual analysis of social deprivation that can be applied systematically to institutional care environments. This analysis will provide the basis for a quantitative component to the description of these environments. The addition of quantitative descriptions can enhance the study of the effects of these environments, which up until this time has been described primarily through subjective descriptions. The paper begins with a narrative depiction of the social environments typical of socially depriving orphanages. This section is followed by brief statement of the importance of investigating social deprivation and an acknowledgment of the complexities of studying this area. Next, a conceptualization of social deprivation and its components is presented, then a history of empirical study of the effects of social deprivation in foreign orphanages, and finally the methodology of the present paper. The conceptualization of social deprivation will then be applied to research in this area as a method for organizing and discussing social deprivation in varying social environments, and its correlates to outcomes in various domains of child development. Summarizations of sociocultural

theory, attachment theory, and social learning theory follow accompanied by their predictions and explanations for some of the outcomes from research in this area.

The paper ends with an introduction to the "theory of development in social environments," which integrates sociocultural theory, attachment theory, and social learning theory to create a comprehensive theory for the study of development of children in varying social environments.

Social Deprivation in Foreign Orphanages

Environments of Social Deprivation: A Narrative Characterization

The following passage is an amalgamation of descriptions of life in socially depriving residential institutions (orphanages). It is not a report of a particular observation of a specific residential institution but combines various researchers' accounts (R. B. McCall, personal communication, 2001; Provence & Lipton, 1962; Sloutsky, 1997; Spitz, 1945; Tizard & Hodges, 1978; Tizard & Tizard, 1971; Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998a,b) of common features of life for children in institutional care. The purpose of this passage is to provide a general illustrative context for the empirical and theoretical discussion to follow by illustrating a typical day in the life of a child living in social deprivation.

> The orphans lived in an exceptionally clean three-story building much like an institution or school rather than a house. They were quick to conform to the caregivers' rules and demands. As a result, the halls were quiet and orderly even when a group of 15 or more children passed through with one or two caregivers.
>
> In milder socially depriving conditions, children occupied a "suite" consisting of two rooms, one room was for sleeping and the other was for playing, eating, and educational activities. In the worst cases of social deprivation, children slept in glass-cubicles, which separated each bed from another, and shared eating, toileting, and play facilities with a larger group of children. These infants and younger children

spent up to 20 hours each day in their cubicle-like cribs that both restricted their movement and resulted in solitary confinement. It was not uncommon for children to remain in this type of solitary confinement until they were able to pull themselves up to peer over the cubicle wall at around 18 months of age.

Typically, children were diapered in their cribs or they were taken to a central changing table in the room. The children were sponge bathed in their cribs, as well. The 15 to 20 minutes required to bathe and dress the children was the longest period of "interaction" many received all day. In some cases, the caregivers talked to the babies, rubbing their bellies, and tweaking their toes during bath time. However, typically talking, eye contact, and any social interaction were kept to a minimum.

The children were provided a diet that was nutritionally appropriate for their growth. However, the small staff size usually did not afford them the opportunity to feed all of the children by hand. Infants who were not yet able to eat from spoons were bottle-fed. Children who were unable to hold their bottles for themselves were fed with propped bottles; those who were able, fed themselves. When caregivers did feed the infants, it was done in a mechanical fashion. In many cases, caregivers faced the children away from them on the caregivers' laps and in a "one-two-three" rhythm oversized spoons moved from the bowl into the infants' mouths followed by two wipes across their chin and lips to catch the food that dripped.

Playtime followed mealtime. Young infants typically spent most of their time in individual cribs. If they were not able to sit without help they were left in their cribs even during playtime. Older infants who were not yet walking were permitted to sit up and look around the room or to pick up the one or two toys in the crib with them. They looked at each other through the bars in the cribs typically without attempting to make contact. However, some children would occasionally pass a toy to a child in the next crib. Older children were given toys to play with independently as they toddled and walked around a large, open playroom. A child may hand a toy to a peer who was also on the floor or hit a peer and take his toy away. In either case, caregivers might separate children who were violent towards each other but would not encourage more prosocial interactions.
In some orphanages, older children participated in educational activities for a few hours each day. But even during these activities, the children did not receive much personal interaction with the teachers and were ostracized by the home-reared children at the school.

Importance of Investigating Social Deprivation

One may presume that the form of early deprivation experienced dictates the form of deficit that results. For instance, early deprivation of cognitive stimulation would be associated with cognitive deficits in children, physical deprivation would be associated with physical deficits, and social deprivation would be associated with social deficits. However, three theories of child development –attachment theory, social learning theory, and sociocultural theory—describe social interactions as crucial processes in human development and predict atypical development in multiple domains in children who are reared in environments where they are denied social interactions.

Apart from the far-reaching effect that social deprivation may have on various areas of child development, social deprivation is also important because its study has obvious implications for informing care in orphanages around the world and presents a "worst case scenario" of the effects of limited interactions with caregivers on child outcomes. These outcomes include difficulties with prosocial peer interactions, hyperactivity, and cognitive delays (e.g., Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998a). Children who struggle in these areas are likely to have difficulties being successful in school.

Finding a situation to study social deprivation independent of other forms of neglect and separate from the intervening influences of the children's families is a challenge in America. Therefore, like earlier studies of social deprivation, ongoing research in this area continues to utilize foreign orphanages as its staging ground.

Research Conducted on Social Deprivation Within Foreign Orphanages: History of the Studies

Studies conducted in English orphanages prior to the 1970's measured physical development (e.g., motor function and health problems), language development, and intelligence (e.g., Spitz, 1945; Provence & Lipton, 1962). These studies revealed gross retardation in multiple areas of development. Spitz (1945) concluded that institutionalized children demonstrated atypical development from home-reared children mainly because they received fewer opportunities for stimulation and focused primarily on "maternal deprivation" as the cause of delays.

In response to findings that the environments within their institutions were contributing to severe deficits in children in their care, English childcare authorities restructured their residential institutions to more closely resemble the environment in a home. They introduced small mixed-age groups of children, increased the number of staff, and attempted to promote the attachment of particular staff members to particular groups of children (Tizard & Joseph, 1970). This reorganization of the English residential care system led to the period of greatest growth in the research of social deprivation in foreign orphanages from which the majority of the information in this particular area of research has sprung.

Tizard and her colleagues planned a set of studies to evaluate the effectiveness of changes in the English residential care system (Tizard, Cooperman, Joseph, & Tizard, 1972; Tizard, & Hodges, 1978; Tizard & Joseph, 1970; Tizard, & Rees, 1974, 1975; Tizard & Tizard, 1971). Tizard and Tizard (1971) measured the social environment in homes and institutions and compared the numbers of interactions home-reared and institutionalized children had with caretakers, other adults, and peers. They also investigated the social experiences of institutionally-reared children

and home-reared children (Tizard & Joseph, 1970; Tizard & Tizard, 1971). Tizard's evaluation concluded that there were significant differences between home and institutional environments despite the reorganization efforts. Institutionalized children were cared for by many more caregivers, played with more children, and received significantly fewer experiences outside of their residences than home-reared children. These characteristics have been consistently found in all of the studies of socially deprived institutions that will be discussed in this analysis (e.g., Stevens, 1971; Spitz, 1945; Tizard, Cooperman, Joseph, & Tizard, 1972; Tizard, & Hodges, 1978; Tizard & Joseph, 1970; Tizard, & Rees, 1974, 1975; Tizard & Tizard, 1971).

Although the English child care authorities' reorganization had not been completely effective, the social environments in English orphanages had improved over their past condition. As a result, the more profound effects of institutional rearing abated and researchers were able to investigate the subtler effects of socially deprived institutional rearing. Correspondingly, studies conducted in England in the early 1970's (Stevens, 1971; Tizard et al., 1970, 1971, 1972, 1974, 1975, 1978) discontinued investigations of some of the developmental domains that had dominated earlier research in this area (e.g., health problems and gross motor development) and began to emphasize areas in which persistent differences between home- and institutionally-reared children remained, which included social behaviors, social interactions and delays in cognitive and language development.

The change in the focus of study from physiological development to cognitive and social development corresponded with new directions in theoretical discussions in child development. Researchers began to reflect the popularization of Bowlby's (1969) attachment theory and discussions of the importance of caregiver-to-child

relationships in their methodologies. For example, Tizard and Joseph (1970) included an adaptation of a stranger anxiety protocol (Rheingold & Bailey, 1959), an attachment scale (Schaffer & Emerson, 1964), and an uncited protocol very similar to the Strange Situation (Ainsworth, Blehar, Waters, & Wall, 1978). As a result, Tizard and her colleagues were able to report atypical behaviors found in their institutional samples including attention seeking behaviors, poor concentration, emotion regulation difficulties, and language comprehension delays.

Tizard and her colleagues explained their findings based on the characteristics of the social environment in which institutional children were reared including: the multiplicity of caregiver contacts with institutionalized children, the caregivers' limited emotional involvement with institutionalized children, and the children's limited experiences outside of the institution. They claimed that these characteristics led to limited cognitive stimulation. Focus on these aspects of the social environment as the source for variations in child outcomes has persisted in subsequent decades of work in foreign orphanages in England and in other parts of the world (e.g., Tizard, & Hodges, 1978; Tizard, & Rees, 1974, 1975; Sloutsky, 1997; Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998a,b; Smyke et al., 2002). Studies conducted since Tizard's work have continued to focus on cognitive outcomes as well as social development, including attachment disorders (Smyke, Dumitrescu, & Zeanah, 2002), peer relationships (Vorria et al., 1998a), conformity, and empathy (Sloutsky, 1997).

Firm conclusions concerning child development in socially depriving environments are difficult to draw from past research on institutionalized children because it is difficult to compare one institution to the next (see Tizard, Sinclair, & Clarke, 1975). This is so partially because differences among the characteristics of

the children, staff and facilities contribute to complicating comparisons. Additionally, researchers of social deprivation relied heavily on narrative accounts of the social environments within residential institutions. However, they have not consistently included the same level of detail when describing the social environments in the institutions.

Our understanding of the effects of social deprivation would benefit from a conceptual analysis of the literature in this area. Such an analysis is taken herein to review the existing studies and to organize and integrate their findings into a framework that can reveal consistent patterns and identify gaps in the knowledge base.

Conceptualization of Social Deprivation within Foreign Orphanages

A Conceptual analysis of social deprivation begins with a clear definition of the term. Social deprivation can be defined as the state of being denied appropriate and responsive interactions with others, whether that denial resulted from limitations placed on one's physical ability to be in the company of others or by limitations on one's emotional access to others. This type of deprivation appears to include two related components: social neglect and emotional neglect. Social neglect includes situations when children are left without a caregiver or when caregivers are physically present but cannot attend to the children. For example, caregivers' attention may be spread to more children than they can effectively provide care. Or their attention may be on a different task than care giving as was the case for children whose primary caregiver had housekeeping responsibilities in addition to child care responsibilities (e.g., Provence & Lipton, 1962).

The second component of social deprivation, emotional neglect, occurs when caregivers are "emotional[ly] distant from children, denying affectionate physical and emotional contact, ignoring signals of distress, denying help, attention, comfort, reassurance, encouragement, acceptance, recognition and stimulation" (Iwaniec, 1997, p. 372). Many researchers indicated that caregivers in their studies were discouraged by administrators and co-workers from developing emotional relationships with the children. Consequently, emotional neglect is common to institutional rearing.

Social deprivation can be present if either or both of these components are present. Both are not necessary; however, cases in which both social and emotional neglect are present are expected to be the most severe.

Social interactions are vehicles for emotional interactions. Thus the presence of social neglect makes emotional neglect more likely, since it is impossible to have an emotional interaction without a social interaction. Social interactions are possible, however, without emotional interactions. This is sometimes referred to as "unresponsive caregiving." An example from Western culture of a social interaction without an emotional interaction is a caregiver bathing children without looking them in the eyes, smiling, entering in conversation, or attending to any curiosities the children display. The caregiver is proximal to the children but not emotionally engaged with them.

Parsing social deprivation into social and emotional neglect according to these guidelines will provide a framework for evaluating the level of social deprivation in varying residential institutional environments and mapping outcomes back to their sources in the social environment.

Methodology of the Current Paper

Since the inclusion of studies conducted in environments depriving in areas extending beyond social deprivation could further muddy interpretations of social deprivation's effects on child development, many studies in which the social environments were not described in enough detail had to be excluded from the current review. Only studies in which researchers mentioned the quality of the social or emotional care children received while in the facilities were considered for inclusion in this discussion. Additionally, studies presented in this paper also had to indicate that children received adequate nutrition and medical care.

Operationalization of the Terms

To operationalize social deprivation in this paper, each component of social and emotional neglect will be rated on a five-point scale from "VERY SEVERE" to "VERY MILD".

Social neglect will be defined by 1) a lack of caregiver presence and 2) a lack of adequate caregiver attention.

Caregiver presence. "Caregiver presence" will be operationalized as the presence of a caregiver in the room with the children. Moreover, caregiver presence will be quantified by the number of hours that children have access to a caregiver during their waking hours when most salient social interactions typically occur. Additionally, accounts of caregivers' participation with children, including cases in which children were not held or played with outside of diapering and feeding will also be taken into consideration.

Specifically, children who are confined solitarily will be rated "VERY SEVERE" on the caregiver presence component of social neglect. Children who are in the presence of a caregiver for fewer than all of their waking hours will be rated "SEVERE". Children in the presence of caregivers during all of their waking hours will be rated "MODERATE". Children in the presence of a caregiver during all waking hours and some hours when they are asleep will be rated "MILD". And children who have continuous care from a caregiver will be rated "VERY MILD" on the caregiver presence component of social neglect.

Caregiver attention. "Adequate caregiver attention" was operationalized by the caregiver-to-child ratios reported in each study and was rated on their level of deprivation according to the National Association for the Education of Young Children's (NAEYC) recommended caregiver-to-child ratios for sufficient staff to promote the physical, social, emotional, and cognitive development of children (see Table 1). The premise here is that the number of children in a caregiver's care can serve as an indicator of the amount of attention a caregiver can give to each child. Note that NAEYC's ratios are presented as "caregiver-to-child" ratios. Consequently, higher ratios represent more attention from caregivers to children or lower degrees of social neglect. Caregiver-to-child ratios consistent with the NAEYC recommended maximum ratios will be rated "MODERATE." Ratios lower and higher than the NAECY recommendations by 25% will be rated "SEVERE" and "MILD" respectively. Ratios lower and higher than the NAECY recommendations by 50% or more were rated "VERY SEVERE" and "VERY MILD" respectively.

Emotional Neglect

Although not quantified per se, emotional neglect is typically discussed in researchers' narratives describing the institutional environments. It was rated "SEVERE" when researchers noted a lack of individualized attention, "en bloc" institutional organization, or the discouragement of personal relationships between the children and staff by administrators or other staff. Emotional neglect was rated "MODERATE" when researchers either noted that the same caregivers were with children each day or reported special circumstances that were likely to have lessened the degree of emotional neglect; and "MILD" when the children were not likely to have experienced emotional neglect such as when researchers noted "mothering" behaviors (Spitz, 1945; Stevens, 1971).

Selection of Studies

This discussion explores the available data on the effects of social deprivation on child outcomes by mining previously published studies conducted in foreign residential institutions. The studies used in this analysis were conducted in social environments that vary in the degree to which they lack social and emotional interactions between caregivers and children. The studies are similar in that the residential institutions provided the children with adequate food, clothing, and medical care.

Each study used in this analysis includes one or more social environments depending on its design. Researchers used the differences between the characteristics in differing social environments to explain the differences in the outcomes found there. Typically, when discussing the studies, researchers separated children from different social environments into samples [e.g., Spitz's (1945) Foundling Home and

Prison Nursery samples] and compared these samples in their studies. In the present analysis, the term "sample" is will also be used to denote a group of children reared in a particular social environment.

This analysis capitalizes on past researchers' use of different samples by comparing samples from within a study of varying social environments, samples between studies of multiple social environments, and samples across studies with similar social environments. For example, the contrast between the social environments in Spitz's (1945) Foundling Home and Prison Nursery samples provides a within-study comparison of social environments. The contrast between Provence and Lipton's (1962) and Stevens' (1971) samples provides between-study comparisons. And similarities between Smyke et al.'s (2002) pilot sample and Tizard et al.'s (1972) High Autonomy sample provide an across-study comparison of social environments.

Consistent with the conceptualization of social deprivation discussed earlier in this paper, prior to analysis, the levels of social and emotional neglect were rated for each sample to indicate the degree of social deprivation expressed in a particular social environment. A summary of the samples in this discussion including ratings of social neglect (i.e., time per week with staff present, caregiver-to-child ratio), ratings of emotional neglect (e.g., discouragement of personal relationships between children and caregivers), the measures used in the study, and the findings can be found in the Appendix.

In order to facilitate the analysis of outcomes from the various levels of social deprivation, the samples were sorted into groups according to their level of emotional neglect, and then further grouped by the most severe rating for either of the social

neglect components. For example, a sample that rated "MODERATE" for caregiver presence and "SEVERE" for caregiver-to-child ratio would be considered "SEVERE" for social neglect because "SEVERE" was the highest degree of neglect for one of the components. Results from these comparisons are presented in the following sections.

Summary of the Studies

Due to Tizard and her colleagues' large contribution to this area of research, most of the studies of social deprivation in foreign orphanages were conducted in England. Others were conducted in Romania (Smyke, Dumitrescu, & Zeanah, 2002), Greece (Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998a,b), Russia (Sloutsky, 1997), and South America (Spitz, 1945). This body of research was conducted over a span of 57 years (1945-2002) and includes approximately 540 children ranging in age from four months to eleven years. Studies conducted prior to 1978 tended to include younger children, while most studies since the mid-seventies have included children over the age of five years. Two-thirds of the samples in this analysis included children younger than five years of age.

Most of the studies were conducted on samples in which children were exposed to "SEVERE" emotional neglect or "MODERATE" social neglect. There were few studies of "MILD" social and emotional neglect or in environments in which emotional neglect and social neglect were in sharp contrast in their degrees of severity. Consequently, it is difficult to tease apart the influence of emotional neglect from social neglect or visa versa. A summarization of the levels of social deprivation and the ages at which children were assessed can be found in TABLE 2.

Most researchers in this area have measured general cognitive development (e.g., IQ) and language development (Provence & Lipton, 1962; Sloutsky, 1997; Smyke, Dumitrescu, & Zeanah, 2002; Spitz, 1945; Tizard, Cooperman, Joseph, & Tizard, 1972; Tizard & Joseph, 1970; Tizard, & Rees, 1974; Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998a).

Attachment behaviors are another area in which researchers tended to focus their attention, especially atypical attachment behaviors, such as indiscriminant behaviors (Smyke, Dumitrescu, & Zeanah, 2002; Stevens, 1971; Tizard & Joseph, 1970). Many researchers also investigated the quality of social interactions between adults and children (e.g., friendliness) as an outcome of social deprivation (Tizard & Joseph, 1970; Tizard & Rees, 1994; Tizard & Tizard, 1971). However, investigations of children's behaviors directed towards peers (e.g., peer aggression and antisocial behaviors) were not as prevalent as behaviors directed towards caregivers. At the same time, areas of competency were rarely measured or discussed with the exception of Tizard and Rees (1975).

Data collection methods typically consisted of semistructured interviews with caregivers and/or children; naturalistic observations or observations of specialized protocols developed for the purpose of assessing specific domains [e.g., change of opinion under pressure (Sloutsky, 1997)]; archival records (e.g., school reports of academic achievement and medical records); and measurements using standardized assessment instruments (e.g., Wischler IQ). Lists of the measures used for data collection are included in the summaries of the studies found in the Appendix. Incidentally, assessment strategies did not include dynamic assessments of children's potential for acquiring skills taking their environment into consideration, but rather,

researchers relied on methods that tested children's actual levels of development and compared their scores to children reared in home environments. Assessments of skill acquisition in concert with consideration for their environments would have afforded an opportunity to utilize a strengths-based approach to understanding the differences in the development of children reared in residential institutions rather than a deficit model of measurement.

Some developmental domains and social environments may appear to have had enough investigation from which to draw conclusions. However, overall, there is a limited quantity of research in this area. Additionally, most of the studies of foreign orphanages were conducted on small, opportunistic samples of the children living in the facilities at the time. These facts necessitate additional study in even the most widely explored areas of social deprivation.

Summary of Child Outcomes from Social Deprivation Research by Degree of Emotional Neglect, Degree of Social Neglect, and Age at Assessment

"SEVERE" emotional neglect/ "SEVERE" social neglect (Provence & Lipton, 1962; Vorria et al., 1998a)

The children in these samples ranged in age from 3 – 12 months or from 9 – 11 years. The infants demonstrated delays in their motor and language development as well as atypical behaviors. For example, Provence and Lipton claimed that the infants in their study continued to cry for a bottle they could see was being prepared. The oldest children in this sample, aged 9 – 11 years, demonstrated health problems; oppositional, aggressive, and antisocial behaviors; emotion and conduct problems;

poor quality peer relationships; indiscriminant friendliness; worry; fear; depression; and hyperactivity.

"SEVERE" emotional neglect/ "MODERATE" social neglect (Smyke, Dumitrescu, & Zeanah, 2002, Standard Care Sample; Tizard and Joseph, 1970; Tizard and Tizard, 1971; Tizard, Cooperman, Joseph, & Tizard, 1972, Low Caregiver Autonomy Sample; Sloutsky, 1997; Tizard & Hodges, 1978)

Most children in this sample, the largest in the analysis, had been reared from infancy in an institution and ranged in age from two to eight years. Although children tended to demonstrate atypical attachment patterns including indiscriminate behaviors, they presented a mixture of outcomes in other domains of development. For example, in assessments of children at or around two years of age, some children were delayed in their language development while others were not. Some children were overly friendly with strangers while others were more shy. In assessments of children older than four years of age, language development was average, but they displayed attention-seeking behaviors, poor concentration, and temper tantrums. Children over four years of age were also found to be less able to empathize with others than were home-reared children. They were also more likely to conform to the beliefs of an adult than home-reared children of the same age. Eight-year-old children from this social environment were average in IQ when compared with a home-reared sample. And, indiscriminant friendliness demonstrated by this sample at previous assessments appears to have persisted, although the symptoms were diminished. Eight-year-old also possessed socio-emotional problems not found in

home-reared children, for example, higher scores on anti-social scales and attention seeking behaviors.

"MODERATE" emotional neglect/ "MILD" social neglect (Tizard, Cooperman, Joseph, & Tizard, 1972, Middle Caregiver Autonomy Sample; Smyke, Dumitrescu, & Zeanah, 2002, Pilot unit)

Children in these samples (ages 18-70 months old) attained normal language development and displayed fewer inhibited withdrawn attachments and indiscriminant behaviors than in the "SEVERE" emotional and social neglect category. Children were also found to demonstrate a preference for a particular caregiver.

"MILD" emotional neglect/ "MILD" social neglect (Tizard, Cooperman, Joseph, & Tizard, 1972, High Caregiver Autonomy Sample; Spitz, 1945 Prison Nursery Sample)

Children in these samples had been assessed at younger than two years of age. These children, who had been reared from infancy in mildly deprived conditions, demonstrated the mildest delays of all samples in this discussion. Most were able to develop attachments, displayed persistent preferences for a caregiver (Stevens, 1971), and attained average scores on general development, language development, and motor development (Spitz, 1945; Tizard, Cooperman, Joseph, & Tizard, 1972).

"MILD" emotional neglect/ "VERY SEVERE" social neglect (Spitz, 1945, Foundling Home Sample)

Children in these samples had also been assessed at less than two years of age after having been reared from infancy in "MILD" emotional neglect with "VERY SEVERE" social neglect. They were found to demonstrate profound delays in their motor and language development as well as in their social development with higher incidences of indiscriminant friendliness and anxiety than infants in less severely neglectful social environments. Samples of children from "MILD" emotional neglect with "VERY SEVERE" social neglect were also some of the few to have increased medical problems despite high quality medical care.

Trends of Child Outcomes from Social Deprivation Research

As was mentioned earlier, it is difficult to make direct comparisons among studies because there are so many factors that vary from study to study. That said, particular trends are presented below in an attempt to summarize the effects of institutionalized rearing from various social environments as succinctly as possible.

Delays typically reported from institutional research are a product of the quality of the social environments in the institution rather than purely the children's location in an institution.

Results from Stevens' (1971) and Spitz's (1945) nursery samples suggest that children can be raised in an institution and develop typically. Although this is not surprising in the prison nursery sample given that the children's own mothers cared for them in an institutional setting, in Stevens' sample the children were reared not only by someone other than their mothers but also by multiple and frequently changing staff members.

Problems in many domains of development (e.g., motor development, language development, cognitive development, and health problems) were greatly reduced as the social environments improved. However, although socio-emotional delays decreased as deprivation decreased, they were still evident at each level of social deprivation (Smyke et al. 2002; Stevens, 1971; Provence and Lipton, 1962; and Tizard and Tizard, 1971).

Indeed this is the most robust finding from this review. The three different social environments in Smyke, Dumitrescu, and Zeanah (2002) provide the most parsimonious support for this claim with findings of a linear relationship between social neglect and indiscriminant behaviors. Additionally, support for this finding can be found at each age of children in this review beginning with Provence and Lipton (1962) and Tizard and Tizard (1971), both of which involved young children. The children in Provence and Lipton's study received an extremely limited number of interactions with caregivers. As a result, the level of social deprivation they were exposed to was much higher than in Tizard and Tizard's (1971) sample, who did not display the motor delays or the problems in their responses to others that were found in Provence and Lipton's (1962) sample. However, the Tizards' sample still demonstrated problems with attachment, including immature attachments and multiple attachments, which although they were not indiscriminate, did not appear to be "close" and genuine. Similarly, social and emotional problems were found to persist in varying levels of social deprivation for Sloutsky's (1997) five-to seven-year olds and Tizard and Rees' (1974; 1975) four-year olds. Tizard and Rees' sample was reported to have a higher caregiver-to-child ratio than Sloutsky's sample and to have

improved in the frequency of verbal interactions for their sample of children. Indeed, researchers found that cognitive delays were evident in Sloutsky's sample but not in Tizard and Rees' sample. However, Tizard and Rees (1975) still reported problems with social relationships. Finally, Tizard and Hodges (1978) reported that eight-year-old institutionalized children scored average IQ's when compared with a home-reared sample. Yet, they still demonstrated socio-emotional problems not found in home-reared children through their higher scores on anti-social scales and attention seeking behaviors.

Children in institutions with higher caregiver-to-child ratios and more responsive caregiver-to-child interactions may have fewer problems regardless of low consistency of caregivers (Stevens, 1971; Tizard et al., 1971, 1975, 1978).

Support for this claim cam be found in Stevens (1971) whose sample experienced an extremely high number of caregivers in their young lives ($M = 29$ during six months) but were provided high levels of attention and interactions by their multiple "mothers." Stevens found that most of these infants had been able to develop normative attachment relationships. At the same time, children in the Tizard studies also experienced high caregiver-to-child ratios and an increasing number of caregiver-to-child verbal interactions, while still being cared for by multiple caregivers. This sample also did not demonstrate the severe delays in social development found in earlier studies and experienced an improvement in cognitive and language development as they got older. Further support for the key role of responsive parenting and high caregiver-to-child ratios was found by Vorria et al. (1989a). Although the institution he studied boasted lower turnover rates than the

other studies in this discussion with over 75% of the caregivers having worked at the facility for more than four years, the caregiver-to-child ratio reached a staggering 1:27 at some points of the day. The children in this study demonstrated multiple cognitive and emotional delays and deficits, which Vorria and his colleagues attributed to the lack of personalized interactions between caregivers and children.

Positive early experiences may provide some protection from later social and emotional neglect (Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998a,b).

This claim is also supported by Vorria et al. (1989b) who found that children who were admitted to the institution for financial reasons rather than because of abuse or neglect scored higher on academic assessments and lower on measures of problem behaviors. However, potentially confounding circumstances, such as more positive relationships during residence the institution between the child and the family members who brought them to the institution for financial reasons, may affect these results. Therefore, additional research on early experiences is still required.

Discussion of Child Outcomes from Social Deprivation Research by Domain of Development

The research suggests that social deprivation comes in a variety of combinations of social and emotional neglect and correlates with a variety of developmental outcomes in different domains.

Behavior Problems

When compared to home-reared children, children from institutions tended to display atypical behaviors ranging from aggression to indiscriminately friendly behaviors. Additionally, the degree of atypical behavior tended to correspond with

the degree of deprivation in their social environments. Emotion regulation difficulties demonstrated through conduct problems, such as attention-seeking, aggression, hyperactivity, distractibility or inattention, antisocial behaviors (e.g., spending more time alone), emotional inhibition/withdrawal, temper tantrums (Tizard & Rees, 1975), problems with peers, clinginess, shyness (Tizard & Rees, 1975), overly friendliness, and anxiety have been reported for children reared in "MILD" to "SEVERE" social deprivation (Smyke, Dumitrescu, & Zeanah, 2002; Tizard & Rees, 1975; Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998a). These behavior problems may pass from child to child in an institution through modeling. Because socially deprived orphans have fewer opportunities to observe models of appropriate behavior and fewer quality interactions with caregivers, they are likely to learn from older peers who have honed their skills through their experiences in the institution. This explanation for atypical behaviors common to institutionalized children will be referred to as "limited appropriate social modeling." For example, in an environment unregulated by adults, aggressive behaviors may prove successful and children are likely to learn aggressive behaviors through their own personal successes and by observing their peers' successes (R. B. McCall, personal communication, 2001). Their learning in this environment fostered behaviors that may have been adaptive for life within the orphanage but would have been considered maladaptive in a different environment outside the institution. For example, children who did not cling to the staff or cry at anyone's departure were reported by caregivers to have fewer behavior problems than those who did. This pattern has been interpreted as "well behaved" by caregivers in the institution who called children who cried to get their attention "spoiled" (Provence & Lipton, 1967). In an adoptive home, however, parents of

young children expect to be missed when they are gone and followed around the house when they are present. The absence of these types of behaviors in a child living in a family may be interpreted as indifference or rejection by newly adoptive parents.

At the same time, attention-seeking behaviors, clinginess, and aggressiveness may reflect institutionalized children's inappropriate attempts to confirm that they are important and well liked. However, these behaviors leave them without positive social interactions and perpetuate the cycle of ostracization (Tizard & Rees, 1975; Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998a).

Language Development

Language development delays were also commonly reported in studies of institutional environments in which children were subjected to higher degrees of social deprivation and typically found in studies of children who entered institutions in infancy (Provence & Lipton, 1962; Spitz, 1945, Foundling Home sample). However, it appears that language development may be a domain that is easily affected by changes in the social environment. For example, Tizard and her colleagues (1972) tested children in their study at age two and found them to be delayed in their language development. However, 2 ½ years later, the same children had improved and were not significantly different from those in the control group. The researchers attributed their sample's normal scores at the 4 ½-year assessment to an increase in the frequency of "adult talk" (p.338) between caregivers and children in the intervening years since the two-year language assessments. The effect of the increase in the frequency of adult talk may have been bolstered by higher quality verbal interactions between caregivers and children in some of the nurseries, as well.

Tizard noticed a difference in the types of adult talk in different nurseries and found that higher quality adult talk, which included offering the children "options, information, and explanations" (p. 338), corresponded with improvements in the children's language development.

Health Problems

Although little mention was given to health problems in the individual samples in this review, findings do suggest that there is a connection between emotional neglect and physiological outcomes. Health problems were only reported in studies of the most severe degrees of emotional neglect (Provence & Lipton, 1962; Spitz, 1945; Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998a). Further study of this connection is needed to definitively support or refute this claim.

Cognitive Development

Delays in cognitive development were found in children reared in institutional environments characterized by "MODERATE" to "VERY SEVERE" levels of emotional neglect and social neglect, whereas cognitive delays were less prominent (Tizard & Joseph, 1970) or not significant (Tizard, 1975) in institutional environments characterized by less severe social deprivation. Tizard and Joseph (1970) reported only a two-month delay in their sample, which had been afforded the benefit of extremely high caregiver-to-child ratios throughout their years in the institutions, while Spitz (Foundling Home sample) reported greater delays in his samples, which were described as having much lower caregiver-to-child ratios and spending more time alone.

Cognitive deficits in some environments with high emotional neglect were commonly found regardless of the children's ages, access to a caregiver for most of

their waking hours, and the presence of supplemental educational classes, or even high caregiver-to-child ratios (Provence & Lipton, 1962; Sloutsky, 1997; Spitz, 1945; Tizard et al., 1970; 1972; Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998a). Tizards' participants received the highest caregiver-to-child ratios of most samples in this discussion. Yet, the low autonomy group (Tizard, Cooperman, Joseph, & Tizard, 1972), which received less individualized attention from caregivers, were the only sample in her set of studies who scored lower on comprehension than the rest of the groups she studied. These findings suggest that the effects of emotional neglect far outreaches emotional development and spills over into cognitive functioning.

It also appears that improvements in the quantity of subsequent social interactions within an institution following a lack of early interactions can improve children's cognitive development. Tizard and Rees (1974) had originally found cognitive delays in their sample, but these delays faded during the intervening years between assessments. Tizard attributed the normalization of their sample's cognitive achievement to the increase in the frequency and quality of the verbal interactions between the caregivers and the children in their care. However, more data are needed to investigate whether there is a critical period for this type of improvement.

Areas such as concentration and attention may also reflect the influence of social deprivation on cognitive development but may be much more sensitive to milder degrees of emotional neglect. Tizard and Rees (1974) found that 4 ½ year olds in her samples displayed more difficulties concentrating and paying attention despite having received care in the environment of very high caregiver to-child ratios and having many opportunities for experiences outside of the institution. These milder degrees of social deprivation are examples of areas in which more research is

needed to investigate whether improvements in child outcomes are possible and whether not there is a critical period during which improvements must occur to make a difference.

Social and Emotional Development

Socially deprived rearing appears to affect the social and emotional development of children in the following ways. Socially, the children appeared to have poorer peer-to-peer and caregiver-to-child relationships. A variety of attachment disturbances including multiple, immature attachments to adults (Tizard & Tizard, 1971), and shallow attachments to both adults and peers were also common to children reared in social deprivation. However, it appears that children reared in "MILD" social deprivation were able to form close attachments (e.g., Tizard & Hodges, 1978). For examples, Stevens' (1971) found that most of their "polymatrically" reared sample developed specific attachments and demonstrated persisting stranger anxiety. Additionally, Tizard and Hodges (1978) found that over half of the children in their study had formed a preference for a particular caregiver.

Emotionally, children from socially depriving environments appear to have difficulties with regulating their own emotions, as well as, problems in empathizing with others' emotions. This is demonstrated by the types of emotion regulation related conduct problems that were mentioned in the behavior problems section, as well as, findings that institutionalized children have difficulties recognizing some emotional states in other people (Sloutsky, 1997).

Researchers have used the "limited appropriate social modeling" explanation to account for difficulties with emotion regulation, as well as, to explain institutional children's problems with empathy. For example, Vorria (1998a,b) and his colleagues

observed that caregivers in their institution demonstrated limited types of social interactions and emotional displays for children living in the facility. They suggested that children living in similar institutions were not provided the quantity or variety of emotional experiences necessary for normative emotional development because of this restricted range of emotions displayed by caregivers. Vorria and others proposed that these differences in experience resulted in variations between what these groups of children learned and how they behaved (Spitz, 1945; Tizard & Tizard, 1971; Vorria, Rutter, Pickles, Wolkind, & Hobsbaum, 1998a). His theory was supported by the finding that fewer institutionalized children than home-reared children had learned to identify emotional expressions of anger, love, fear, and joy—emotions not likely to be displayed by the caregivers (Sloutsky, 1997).

Summary of Evidence for Moderators of Child Outcomes from Social Deprivation Research

In addition to studying the outcomes of growing up in socially deprived environments, researchers have also studied the factors that moderate these outcomes. Despite evidence that children within a particular environment typically exhibited the same types of impediments as their peers (Provence and Lipton, 1962), placing a group of children into the same environment was not a recipe that yielded the same outcome for each child. A quick perusal through the mixed findings in the literature reveals the variability of outcomes that resulted from within the same or similar environments (e.g., Stevens, 1971). Some participants functioned within the normal range of expected outcomes, while others displayed major psychopathology. Indeed, researchers have questioned whether negative outcomes have been correctly

attributed to institutionalization or whether factors such as those in the following sections are actually to blame (Roy, Rutter, & Pickles, 2000). Variations in these factors are also sure to have affected the outcomes and comparability of samples within the current review.

Pre-admission Experiences

Pre-admission experiences appear to affect children's resiliency or susceptibility to the negative experiences they receive in the institution. For example, a reasonably normal infancy and toddlerhood prior to entering the institution may be a protective factor for children who are admitted to an orphanage at four years of age versus an institutional upbringing from birth (Sloutsky, 1997). At the same time, the reasons for which children were admitted to orphanages (e.g., parent/child mental or physical illness, financial problems, family disharmony, or unwed pregnancy) may also influence children's susceptibility to the ill effects of institutional rearing. Vorria and his colleagues (1998b) investigated their participants' pre-admission experiences by using "reason for placement" as a proxy for the quality of the children's early experience. They found that children who had been admitted to the institution because of financial hardship displayed fewer deficits than their peers who had been admitted because of abuse or neglect in their biological homes.

In his earlier work with children post-adoption, Rutter suggested that pre-admission factors might play a significant role in the outcomes of children in institutions (see Rutter, 1995). He later found that children's early experiences had limited effects on their post adoption development, if the latter experiences were positive. However, even in the best environments, he found that recovery was not universally complete nor did it occur in all cases. Additionally, early negative

experiences may produce prolonged negative effects if the residential institution does not provide a positive environment, as many of them did not.

Individual Differences in Post-admission Experiences

Individual differences in children's experiences post-admission to the institution must also be considered. Once children arrived at the institutions, they did not always receive the same level of care or identical experiences. Within a residential institution, particular children who have been described as nurse's "favorites" were spoken to and held more often than other children (Provence & Lipton, 1962) and, as a result, received more opportunities for implicit and explicit learning than their peers. For example, Tizard and Tizard (1971) reported "special nurses" who were each assigned to one or two children. Special Nurses gave small gifts to the children, took them out during free time, sometimes tucked them in at night, or took the children to the nurse's home over a weekend. Although the researchers did not expound on the special nurse visits, it is likely that the children received a much more normal interaction within a family environment, even for a weekend at a time, than they received at the institution. They were more than likely also exposed to various family roles (e.g., mother, father, sister, and brother) that according to Sloutsky (1997) were not part of institutional life. Their experiences with the special nurses probably also provided additional opportunities for interactions that contributed to this group of children's capacity to express preferences for caregivers (Tizard & Tizard, 1971). Smyke and her colleagues (2002) also found that children having 'favorite' status with a caregiver were somewhat protected from attachment disorders. They displayed lower scores for the

inhibition/withdrawn, indiscriminate reactive attachment disorder, and indiscriminant behavior scales.

Provence and Lipton (1962) provided another example of how differential experiences within the institution may affect child outcomes. The researches described how a factor as simple as children's crib placement could affect the experiences they received. For example, children who were well liked were placed closer to the diapering area. These children received more attention from caregivers than the other children. Caregivers spoke to these children more often as they passed by or while diapering another child. They also touched the children who were placed closer more frequently. The special nurse system, favoritism, and children's crib placement are examples of differential experiences within the institution that could contribute to individual differences in children's developmental outcomes.

Length of Stay in the Institution and Child's Age at Entry

The roles of factors such as the length of time the children stayed in the residential institution and the child's age at the time the child entered the residential institution are still debated. Since children typically enter orphanages soon after birth and remain in the facilities until they are either adopted, die, or transition to group homes for older children, studies of institutionalized children typically confound length of deprivation and age at the time of deprivation. As a result, researchers have been unable to attribute outcomes independently to either of these factors.

Intuitively, children's age at the time they entered the orphanage is salient in assessing the skills they would normally be gaining at the point in time they enter the orphanage and the opportunities they receive to reach subsequent milestones. At the

same time, the longer the period of time children are in a deprived environment the fewer opportunities they will receive to be stimulated in a way that will promote their development. Findings investigating these factors, however, have been mixed. For example, Sloutsky (1997) studied six- to seven-year-old children who had entered the orphanage at an average age of 27 months. He found that children who entered the orphanage earlier had lower verbal, performance, and IQ scores than those who entered at older ages. He also found that children who entered the orphanage as younger infants were less able to empathize with other's emotions. On the other hand, Vorria et al. (1998b), studied older children (aged 9 and 11 years) who had entered the institution at a wide range of ages (birth to seven years) but had all been in the institutions for at least 2 ½ years. Vorria and his colleagues did not find "age at admission" to be significantly associated with child outcomes, not even with peer relationships, which they had thought would be negatively correlated with this factor. Tizard and Rees (1975) also found no relation between age at adoption, which for their sample was highly correlated with length of time in institution, and the children's problem scores or whether they were considered "overly" or "indiscriminately friendly."

Peer Interactions Inside the Institution

The quality and quantity of peer interactions within the institution may also moderate the ill effects of institutionalization. At an early age, children begin to have social exchanges with their peers. These interactions begin as brief action-response exchanges and gradually become longer and more complex as children mature from six-months to preschool-aged. Like relationships with their caregivers, normally developing children gain a great deal from peer relationships. They learn acceptable

behaviors through their interactions with their peers as well as receive a level of intimacy and emotional support different from that parents provide. Within the institutional environment, children are exposed to many more interactions with children than typical home-reared children (Tizard & Tizard, 1971). It appears that despite the many opportunities to learn and grow through interactions with peers, children deprived of social interactions with caregivers may lack the skills to constructively interact with their peers. Provence and Lipton (1962) observed the poor quality of peer interactions between institutionally reared children. Their accounts indicated that the infants showed remarkably little interest in one another despite their close proximity to each other. Vorria et al. (1998a) found that institutionalized children engaged in antisocial behaviors that prohibited them from developing friendships with peers. Their finding is consistent with O'Connor's (1999) suggestion that indiscriminant friendliness may actually be an expression of inappropriate social approach, which may be overcome through therapy that teaches prosocial skills.

Unfortunately, analysis of interactions with peers was missing from most reports of the environments within residential institutions despite convincing evidence in non-institutionally-reared populations that peers provide important support and play a crucial role in children's social, emotional, and cognitive development (see Price & Brew, 1998 for a review). When mention of the interactions children in institutions have with their peers is made, details indicating the level of peer interactions the children receive are inconsistent, although there is evidence that the children do not have either the social skills or the motivation to interact with their peers (Provence & Lipton, 1962). Mostly peer interactions are

discussed in the environment of behavioral problems expressed by the focal child (e.g., peer aggression, limited confiding friendships, inappropriate affection seeking) (Tizard & Rees, 1975; Lee, 1999; Vorria et al., 1998a).

Peer influence on social development in orphanages is an area ripe for investigation if not solely because these interactions appear to comprise the majority of social interactions children in socially deprived institutions receive.

Theoretical Discussion of Child Outcomes from Social Deprivation Research

In the following sections, brief summarizations of sociocultural, attachment, and social learning theories will be presented with their predictions and explanations for some of the child outcomes from research on social deprivation in foreign orphanages.

Sociocultural Theory

Summary. According to Vygotskian-sociocultural theory, a child engaged in an activity within a cultural environment is the smallest meaningful unit of study; and children's behavior cannot be understood independently of their environment. The environment dictates children's experiences, defines the competencies necessary for survival, and provides the tools and strategies for acquiring those competencies. According to socioculturalists, children actively engage in the process of socialization as they learn to meet their needs using opportunities for development provided by their environment. Vygotsky (1978) claimed that children develop as they move through the "zone of proximal development" —the distance between what a child can do without help and what a child can do with help. Children are assisted in their development by competent members of their environment through "scaffolding" or

support of a child's developing skills until the child is able to demonstrate the task independently. Adults also assist in children's learning by helping children to adapt their knowledge to a new situation and encouraging them to continue to develop new skills. The learning process is aided by the adult's ability to draw upon their intersubjectivity—"a shared understanding with the child, based on a common focus of attention and a common goal" (Miller, 2002, p. 379). Children then internalize (Vygotsky, 1978) and appropriate (Rogoff, 1990) their newly developed behaviors and ways of thinking from their activities with competent members of their environment who include adults or more skilled peers.

Sociocultural theory's predictions for children from social deprivation. The primary contributions of sociocultural theory are its emphasis on the environment as an active participant in child development and its handling of learning as a developmental process. A sociocultural approach affords predictions for behaviors, social and emotional development, language development and cognitive development all based on their utility in promoting competence for survival ir a particular environment.

According to sociocultural theory, differences between the cultures of homes and institutions provide children living in these two environments with dissimilar experiences. Subsequently, the dissimilarities between the experiences provided by these environments ensure differences between the opportunities to learn and the content of the learning children in these environments receive. Regardless of the specificities of the lessons, sociocultural theory predicts that children will learn the appropriate skills to function in their environment and that those skills will be adaptive to that environment.

Sociocultural theory does not encourage comparisons between children from different environments. Instead, it promotes a strengths-based environment-contingent approach to assessment. If it is applied to comparisons between home-reared and institutionally reared children, sociocultural theory simply predicts different processes for development and stresses that the content of the development will differ, as well. Judgments on the typicality or atypicality of the outcome are left up to the interpretation of the assessor.

Behaviors. As was mentioned previously, institutionally- and home-reared children would be predicted to demonstrate different behaviors. Provence and Lipton (1962) reported that institutionalized infants six to nine months old, who were subjected to severe social deprivation, had not learned to wait for a bottle they could see was being prepared for them and cried violently until they were fed. In the institutional environment, sociocultural theorists would predict that the children had developed appropriate strategies for acquiring food and would interpret the children's behaviors as adaptive since they were effective in attaining their goal. Although this behavior is not normal for home-reared children and would be considered a delay in the development of caregiver expectations, it is actually quite adaptive in an environment of social deprivation as it succeeded in meeting the children's need for food. The children in the study appear to have learned that in their environment, in which few staff cared for many children, they were more likely to be fed earlier if they cried violently even after a bottle was in sight.

Researchers have also reported older infants who sat completely still while being fed by caregivers and appear unengaged in the feeding process (R. B. McCall, personal communication, 2001). Although their behaviors were characterized as

delayed when compared to home-reared children, who could use a spoon independently at the same age, these children had developed competencies adaptive to their environment and could facilitate the feeding process through their inactivity.

Cognitive development. According to sociocultural theory, differences in institutionally-reared children's cognitive development would be predicted to result primarily from characteristics common to institutional rearing: limited interactions with caregivers and the multiplicity of caregivers. According to socioculturialists, these characteristics lead to a lack of intersubjectivity between caregivers and children and less common ground on which to scaffold an understanding of new social and cognitive experiences. Since skilled caregivers guide children through the zone of proximal development, their limited social interactions with more competent models would leave institutionalized children with fewer opportunities to be guided through the zone. Consequently, without adult support, institutionally-reared children would be predicted to develop less quickly than home-reared children. However, it would be interesting to investigate whether the apparent cognitive delays would be considered adaptive to the environment in which the children are reared.

Language development. Sociocultural theory predicts varying levels of language development that correlate to the quality and quantity of language children are exposed to and more precisely, the level of language proficiency necessary for success in a given environment. Based on this prediction, researchers measuring language development from a sociocultural perspective would need to consider the level of language proficiency necessary for survival in the environment in question before assessing the degree to which children are developing appropriate language skills. Children from an environment where verbal communication is essential to

receiving their goals would be predicted to appear more advanced in their language development than children from an environment where goals could be attained independent of language proficiency.

Additionally, when researchers employ measures that are invalid for a particular environment, the results are likely to misrepresent the level of functioning capable for children within that environment. For example, lower language comprehension scores received by institutionalized children reared in more severely deprived institutions could be accounted for by the type of assessment tool used by the experimenters. If the assessment tool measures language skills common to social interactions that do not commonly occur in the environment under investigation, then children would be expected to earn low scores.

Social and emotional development. Sociocultural theory also leads to a demonstration of emotions contingent on their utility within a particular environment. In the most severely emotionally and socially neglectful environments, children would be predicted to demonstrate few emotions and may behave apathetically. Social skills are not crucial for survival in these environments and children's basic needs are met without having acquired them. For example, Sloutsky (1997) found that fewer institutionalized children than home-reared children had learned to identify emotional expressions of anger, love, fear, and joy. Interestingly, this sample was equally or better able to identify sadness and disgust than the home-reared sample. In a typical home environment children are exposed to and rewarded for a larger range of emotion. Meanwhile, in a moderately deprived institution, angry outbursts may or may not receive a response and personal emotional interactions, such as love, are discouraged. Consequently, the ability to recognize these emotions is less important

than in a home environment. On the other hand expressions of sadness or disgust may be useful for alleviating discomfort, when necessary.

In environments with milder social deprivation, children may be able to influence their care by developing the social and emotional skills valued in that environment. Sociocultural theory could be used to forecast indiscriminately friendly behaviors and shallow attachments in children reared in socially depriving environments. In an environment with high staff turnover, the ability to demonstrate friendliness quickly rather than warming to an individual over time would be a valuable asset. Unfortunately, it does not appear that the artificial friendliness translates to the development of social skills necessary for developing enduring and secure relationships. Moreover, sociocultural theory would require addition support to account for the difficulty some children have in acquiring the skills necessary to develop more enduring and close personal relationships once the environment has been changed to one more supportive of those types of relationships.

Social Learning Theory (Bandura, 1986)

Summary. Similar to sociocultural theory, social learning theory also focuses on the process of socializing children to be competent adult members of society. Typically, caregivers assist children in learning by alerting them to important details, assisting them in developing hypotheses, and helping them to develop information gathering strategies.

Bandura identified three factors that affect children's development into competent adult members: 1) physical maturation, 2) experience with the social world, 3) and cognitive development. Although physical maturation is not of

particular concern to social learning theorists, children's experiences with their social world is an area of interest. This factor is an area where children develop through three processes: through the accumulation of a repertoire of behaviors that have been successful in various environments, the positive and negative reinforcements of others, and the internal motivation these reinforcements produce.

According to social learning theory, children learn new behaviors and modify old behaviors as they encounter their social and physical world. Dollard and Miller (1941) stated that one of the most powerful socialization forces is imitation. Children tend to model competent members of society who have been rewarding in the past and those with high status, power, or competence. Rewards produce an incentive, encouraging children to continue to seek self-satisfaction, success, and achievement in the future. Social learning theorists also believe that children learn intricate or complex behaviors from abstract modeling—abstracting a general rule from observing specific behaviors and through observational learning—simply watching the punishment or reward of a model through a process called vicarious reinforcement (Bandura & Walters, 1963). After children have acquired new behaviors by observing models, they are believed to combine these behaviors to form more complex behaviors.

Social learning theory's predictions for children from social deprivation. Social learning theory provides ample input on the processes through which children learn behaviors. Its tenets are also easily applied to the behavioral aspects of socio-emotional development. However, social learning theory does not clearly account for language and cognitive development except perhaps as an accumulation of observations and experiences with the physical and social environment. As a result,

social learning theory provides predictions for behaviors, social development and emotional development, but is not as useful for cognitive development and language development.

Behaviors. Children reared in homes and institutions are provided different models of behavior and reinforcements for different behaviors. As a result, social learning theorists would predict different outcomes for children from these two environments. Although he did not specifically reference social learning in his discussion, Sloutsky (1997) provided an example of abstract modeling that led to different behaviors in home-reared and institutionally-reared children. Sloutsky found that institutionalized children conformed more often to an adult experimenter's opinion than home-reared children regardless of whether or not the children originally disagreed with the experimenter. Sloutsky (1997) posited that the orphans had generalized the rule that adults were always right from their experiences with the powerful caregivers in the institutions in which children were not permitted to make their own decisions about much of anything in their lives. Another interpretation could be that the children had learned that they might as well conform to the opinion of the adult because their own opinion was not taken into account if it differed from that of the caregivers.

In addition to experiencing differing models of behavior, children living in institutions receive reinforcements based on values that may not resemble the values in a home environment. Since children living in social deprivation are not provided as many opportunities for reinforcement, presumably the reinforcements they witness would be much more salient than in home environments where children are inundated with social interactions with caregivers. In an institutional environment,

reinforcement can be derived from being fed or changed first or picked up more frequently. Behaviors considered maladaptive outside of the orphanage may be learned because children imitate behaviors successful in their immediate environment regardless of their desirability outside of that environment (e.g., aggressive behaviors, conformity, learned helplessness). For example, institutionalized children typically displayed indiscriminately friendly behaviors. In fact, indiscriminant behaviors, including a lack of confiding peer relationships, are easily explained by social learning theory. Indiscriminant behaviors are likely to be reinforced in an emotionally bereft institution. Children may interpret caregivers' shallow kindness and pleasantries, as presented through the types of verbal responses caregivers typically used with the children, as socially acceptable. Furthermore, children may receive vicarious reinforcement through watching the success of older peers who engage in indiscriminant behaviors. Therefore, it follows that children would imitate the shallow interactions in their relations with peers (e.g., non-confiding peer relationships; Vorria, 1998a) and caregivers (e.g., shallow attachments; Tizard & Tizard, 1971). Greeting familiar and unfamiliar adults with excessive warmth is also likely to receive the reinforcement of a warm response in return. Therefore, children in institutions devoid of or limited in emotional and social interactions are likely to imitate the excessive social displays.

Emotional development. Social learning theory also predicts delays in institutionally-reared children's emotional development when their development is compared to home-reared children. For institutionally-reared children, models include caregivers who have been reported to demonstrate fewer emotional behaviors than they would outside the orphanage and to interact with the children in a more

detached manner than they would in a different environment (e.g., Sloutsky, 1997; Tizard & Tizard, 1971). Consequently, children living in residential institutions are exposed to a limited range and quantity of emotional behaviors and would not be predicted to have learned emotions that they have not observed (Sloutsky, 1997).

Attachment theory

Summary. Attachment theory (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969) begins with the idea that infants are innately programmed to seek proximity to adults. Simply put: the infant cries; their caregivers respond. Other actions draw other responses. For example, infant smiles elicit praise and a reciprocation of smiles from caregivers. This pattern forms an "attachment behavioral system" in which infants expect that their actions will elicit reactions from their caregivers. When adults consistently respond to infants in a reasonable amount of time with an appropriate reaction, a pattern of expectation is created in which infants learn that caregivers will care about and for them. To infants, a responsive social environment is analogous to consistent caregiving.

Through caregivers' consistent responses to children's behaviors, children are given the opportunity to learn appropriate behaviors and to see that their behaviors affect people and things within their environment (Bowlby, 1982). Recognition that they can affect their environment and the pleasure this influence brings then encourages children to learn more about their environment (Bornstein & Tamis-LeMonda, 1997, p. 283). Children also learn that they are worthy of attention. The result of consistent and appropriate responses is a secure relationship between caregiver and child and the accompanying safety to explore the world around them. This exploration leads to experiences that allow children to learn and grow

cognitively, emotionally, and physically. Cognitively, they learn through their interactions with the physical world; emotionally, caregivers demonstrate to the children that they are important at a time before their own sense of self worth has developed; and physically, through play, children build on present skills and acquire new ones. At the same time, securely attached children are motivated to please their caregivers and listen to what they are told to do. Consequently, securely attached infants tend to have fewer behavior problems than those who are not securely attached.

The early bonds formed between a child and caretaker are crucial to normative development. Infants form what Bowlby referred to as "internal working models" for interpersonal relationships through secure attachment bonds (Bowlby, 1969). Infants learn appropriate social behaviors through secure attachment bonds. The trust and approval promoted through early attachment bonds are believed to serve as the foundation for relationships that individuals form as they move from childhood to adulthood.

Attachment theory's predictions for children from social deprivation. By definition children exposed to a socially deprived environment will very likely be exposed to a multiplicity of caregivers and inconsistent or unresponsive caregiving. Both of these characteristics common to institutional rearing make developing secure attachments with a primary caregiver difficult. It is hard to attach oneself emotionally to a caregiver when that person is constantly changing by the shift, leaving for another placement by the week, or who does not make herself emotionally available. Infants exposed to social neglect are less likely to receive the types of reactions from

their caregivers that lead to secure attachments and are likely to display attachment disorders.

Cognitive and motor development. Typically, according to attachment theory, infants develop curiosity about their environments and feel comfortable to explore their environment as a result of the security they draw from their relationships to their attachment figures. Children reared in social deprivation are less likely to have developed a secure attachment and consequently are less likely to have the comfort and curiosity to explore the world around them. Therefore, they are likely to receive fewer opportunities for motor and cognitive stimulation than securely attached infants who are more likely to have developed their secure attachments in a environment of cognitive and motor stimulation and may interact with their environments more because they feel comfortable doing so. As a result, attachment theory would predict lower cognitive ability and motor function in children reared in social deprivation.

Delays in social and emotional development. Typically, a securely attached infant would respond to a fearful or stressful situation by seeking proximity to an adult to whom the child was attached. Instead, children who are exposed to social deprivation are more likely to develop attachment disorders. O'Connor and his colleagues conceptualized "attachment disorders" as producing disruptions in "attachment, exploration, fear, and wariness behaviors" (See O'Connor et al., 1999). Consequently, they may seek proximity to adults whom they may not know well as is the case with indiscriminant friendliness. According to attachment theory indiscriminant friendliness is a likely outgrowth of multiple caregivers given the difficulty of establishing an attachment to a particular person when one's caregiver is constantly changing. It is much harder to learn the pattern for many different

caregivers than to learn the pattern of one consistent caregiver. Therefore, it is an adaptive strategy for children living in an institution to display what appears to be an attachment to many caregivers or to any caregiver who is available.

Inconsistent or unresponsive caregiving is also likely to produce atypical relationships in institutionalized children. Children living in severe social deprivation who may experience a response that comes after the child has cried for a prolonged time or not receive any response at all would be predicted to develop expectations of caregiver responses consistent with their upbringing that prove adaptive for institutional life but are maladaptive for children outside of institutions (Provence & Lipton, 1962).

Since attachment relationships also correspond to children's feelings of self worth, children who are responded to swiftly and appropriately learn that their needs are important and consequently so are they. On the other hand, children who are neglected learn the opposite and may develop lower self-esteem and a decreased feeling of self worth. Consequently, they may search for confirmation that they are important and well liked. Emotionally needy children may demonstrate their requests for affirmation through problem behaviors such as attention-seeking behaviors, clinginess, and aggressiveness. All of these behavior problems are commonly found in children who have been reared in social deprivation.

The Necessity for Integrating Sociocultural Theory, Social Learning Theory, and Attachment Theory to Inform the Discussion of Social Deprivation

Research on socially deprived foreign orphanages and approaches to explaining its findings have been influenced by sociocultural theory (Tizard, Cooperman, Joseph, & Tizard, 1972; Sloutsky, 1997; Vorria, 1998a), attachment theory (Spitz, 1945), and social learning theory. However, researchers have fallen short of a comprehensive explanation for phenomena typically found in socially depriving institutions from a developmental perspective.

For example, sociocultural theory's influence can be seen in researchers' acknowledgments of the influence of variations between institutional and family environments on children developing within those environments (e.g., Spitz, 1945; Sloutsky, 1997; Vorria, 1998a) and is useful in describing the process through which social, emotional, and cognitive development occurs. However, the idea that children adapt to their environments and develop competencies appropriate to their environments as presented in sociocultural theory is curiously absent from discussion in this area. Social learning theory readily accounts for atypical social and emotional development of children from socially deprived environments when they are compared to home-reared children. However, neither sociocultural nor social learning theories can account for the persistence of social and emotional problems in children from mildly deprived environments who are otherwise developing normally. And attachment theory, although it may provide insight into the persistence of social and emotional difficulties, requires assistance in describing the process of cognitive

development and is most certainly aided by introducing environment and more specific processes for learning.

In an attempt to begin such a discussion, a new theory, incorporating these three theories and forming a comprehensive approach to development within socially deprived environments will be introduced in the following section. This theory will be referred to as the "theory of development in social environments." The presentation of this theory is not complete. However, it is being offered as an illustration of the important contributions of sociocultural, attachment, and social learning theories in the investigation of development in varying social environments.

The Theory of Development in Social Environments

The behaviors that children learn and the activities in which they engage serve a purpose and are not always simply responses to their environment. In fact, children actively engage in the process of socialization—or the development of competent behaviors necessary for successful integration and/or survival in a particular environment. Consequently, children from atypical environments are likely to have developed appropriately atypical behaviors for meeting their needs in that environment. Determinations of the adaptiveness of particular behaviors must be made after considering the environment from which a child comes.

The processes through which social deprivation influences the development of competencies can be addressed using the theory of development in social environments. This theory layers sociocultural theory, attachment theory, and social learning theory like lenses that create a clearer picture for assessing behaviors within a particular social environment of interpersonal relationships, necessary competencies, tools needed to succeed, and models from which to learn. These

theories are compatible because each is founded on the premise that development occurs not with a child alone but as a result of interactions between a child and other individuals. Yet, each theory provides a unique contribution to a more comprehensive grand theory for children development: Sociocultural theory provides the environmental component for development and integrates learning with development. Attachment theory provides the interpersonal relationship component for development. And social learning theory provides processes for the activity of development.

In a nutshell, the theory of development in social environments dictates that the environment determines the skills children need to learn. Learning takes place through imitation of others who are successful or from the child's own successful attempts at meeting his/her needs. Children are given opportunities to develop successful skills (social, cognitive, emotional, and physical) through patterns that develop during their experiences and interactions with caregivers and through behaviors they learn through their interactions with their social and physical environments. The patterns form "internal working models" that will be applied to future relationships and situations. Behaviors are learned as a result of their effectiveness in a particular environment and are reinforced or extinguished through reward or punishment. Interpersonal relationships can facilitate learning by providing models to imitate and the extrinsic motivation to acquire new skills. Extrinsic motivation will later translate into intrinsic motivation as children inculcate the values of the environment in which they live. As children mature, expectations for their behaviors increase and reinforcements are provided in accordance to these changing expectations.

According to the theory of development in social environments, the otherwise maladaptive behaviors of institutionalized children may be fully adaptive within the environment in which they were socialized, their needs in that environment, and the expectations of competent members of their environment. Before assessing whether a behavior is adaptive, researchers must think of institutionalized children as they function within their particular environment. Only then can a particular behavior be deemed appropriate, adaptive, or maladaptive.

Without an environment we are left with an incomplete picture of development. This approach leads to the false assumption that the behaviors of home-reared children are the gold standard and that any divergence from this standard is maladaptive. That said, the practice of using home-reared children as comparisons when assessing the adaptativeness of behaviors is not completely misguided. One hopes that they will develop skills useful in a family environment, since children living in institutions will optimally be placed in homes and grow to function as competent adults in society. However, measuring children's abilities to develop new skills or their ability to adapt their current competencies to life in a new environment may be a better strategy for identifying the effects of social deprivation on child development rather than a strict comparison of existing behaviors which are likely to reflect the child's current situation.

As the components of the theory of development in social environments, sociocultural theory, attachment theory, and social learning theory retain their original tenets but are nested one within the next: social learning theory within attachment theory within sociocultural theory. The relationship is very similar to

Bronfenbrenners's (1977) microsystem that is described as a setting containing participants engaged in an activity.

Three Layers of the Theory of Development in Social Environments

Sociocultural theory. Sociocultural theory is the first layer of a comprehensive theory for development within varying social environments. It provides the backdrop onto which the study of social deprivation is laid and introduces the concept of environment into our model. This Vygotskian approach reflects an assumption that the child resides within an environment and that the interaction between the child and his/her environment together affect the processes and content of human development. Therefore, it must be used as the framework through which behaviors are investigated if these behaviors are to be properly understood.

Attachment theory. Attachment theory is the second layer of the theory of development in social environments. It reflects the interpersonal relationship components of the social environment and provides a source for extrinsic motivation for developing social behaviors and motor skills such as locomotion that in modern society may not appear to be crucial for survival (Spitz, 1945).

Social learning theory. The innermost layer of the theory of development in social environments is social learning theory, which reflects the mechanisms through which competencies are developed and learned from others in a social environment.

Applying the Theory of Development in Social Environments to Child Outcomes from Varying Social environments

The process for applying the theory of development in social environments to determine the appropriateness of a behavior involves:

1. Describing the social environment (i.e., level of social deprivation).
2. Determining the relationship between the focal child and adults in the environment including expectations for the focal child's behavior.
3. Assessing the tools available to the focal child (e.g., language, locomotion) to meet his/her needs.
4. Determining the appropriateness of the focal child's behavior in light of items 1. - 3.

In summary, the system through which behaviors are learned and activities are conducted by a child who has developed a relationship with a caregiver in the environment of social deprivation may be explained using the theory of development in social environments. This theory accounts for each component of development in the social environment: the contribution of environment, interpersonal relationships, and a mechanism through which development occurs.

Conclusions

Social deprivation can be parsed into social and emotional neglect. Using this conceptualization, studies of various levels of social deprivation can be categorized and their outcomes compared.

Based on the findings from studies of foreign residential institutions, developmental milestones involving the acquisition of cognitive skills and

interpersonal skills are at the forefront of in which children reared in socially depriving environments differ from children who were not subjected to social deprivation (e.g., Provence & Lipton, 1964; Tizard & Hodges, 1978; Vorria et al., 1998a,b). Concomitantly, there are many moderating factors—both pre- and post-admission—that influence the effects of social deprivation. These factors lie within the child and within the institutional environment.

Research further suggests that the environment in which children develop correlates to child outcomes and that improvement in orphanages' organization and procedures can be made so that outcomes for institutionalized children more closely resemble outcomes for home-reared children. These improvements include increasing the caregiver-to-child ratios, assigning staff to the same group of children, and instructing caregivers to respond to children in their care on an individual basis with love and deference.

On the other hand, there are still many questions to be answered. Some of these questions concern the influence of peer relationships on child development in environments with few caregiver-to-child interactions and the competencies that develop in otherwise atypically developing children.

The process by which social deprivation leads to the outcomes found in institutionalized children can be examined using sociocultural, attachment, and social learning theories. However, applying these theories independently does not provide a complete framework for investigating this area. The "theory of development in social environments," which combines the environmental, interpersonal, and mechanistic components of sociocultural, attachment, and social learning theories respectively to create a comprehensive theory of child development specifically

developed for the study of development in varying social environments may be helpful in future discussions of outcomes from children reared in varying social environments.

TABLE 1

NAEYC Recommendations for Maximum Staff-to-Child Ratios

Age of Children	Ratios
Infants *(birth to 12 months)*	1:4
Toddlers *(12 to 24 months)*	1:5
2-year-olds *(24 to 30 months)*	1:6
2 ½-year-olds *(30 to 36 months)*	1:7
3-year-olds	1:10
4-year-olds	1:10
5-year-olds	1:10
Kindergartners	1:12
6-to 8-year-olds	1:15
9-to 12-year-olds	1:15

Source: http://www.naeyc.org/accreditation/naeyc_accred/info_general-components.htm#F

TABLE 2

Number of samples studied in each age at assessment for each level of social and emotional neglect

	Emotional Neglect		
Social Neglect	MILD	MODERATE	SEVERE
VERY MILD	1*		
MILD			
MODERATE	1*, 1 **	1**,1***	3**, 4#
SEVERE			1*
VERY SEVERE	1*		1#

Note. * = Age at assessment approximately 1 year old
** = Age at assessment approximately 2 years old
*** = Age at assessment approximately 3 years old
# = Age at assessment approximately 5 years old or older

Appendix

SAMPLES IN WHICH EMOTIONAL NEGLECT WAS RATED "MILD"

Spitz's (1945) Foundling Home Sample

Description

Emotional Neglect

Spitz's description of the Foundling Home infants 4 to 12 months of age (n = 69) receiving care which was "unusually mothering" from multiple caregivers resulted in a rating of "MILD" for emotional neglect.

Social Neglect

Caregiver presence. Spitz's report that infants "lacked human contact for most of the day" resulted in a rating of "VERY SEVERE" for caregiver presence.

Caregiver-to-child ratio. The infants experienced a ratio of 1:8-1:9 that resulted in a rating of "VERY SEVERE".

Measures

1. Hetzer-Wolf Baby Test
2. Naturalistic Observations

Findings

Spitz found that this sample showed delays in their general development, body mastery, and language and motor development. They also demonstrated indiscriminant friendliness, anxiety, and health problems.

Stevens Sample of Institutionally Reared Infants (1971)

Description

Emotional Neglect

Stevens described the care the infants (age 4 to 15 months, n = 24) received as "reared by many mothers", insinuating that although there were multiple caregivers, the infants were not denied emotional interactions. Consequently, emotional neglect was rated "MILD".

Social Neglect

Caregiver presence. Steven's report that the children did not spend much time alone resulted in a rating of " VERY MILD" for caregiver presence.

Caregiver-to-child ratio. Children in this sample experienced a "VERY MILD" ratio of 1:1.

Measures

1. Observations using: Ainsworth's (1964) differential criteria for attachment and Schaffer and Emerson's (1964) criteria of proximity seeking

Findings

Stevens found that 75% of this sample was able to form attachments and persistent preferences for a nurse as well as separation anxiety.

Spitz's (1945) Prison Nursery Sample

Description

Emotional Neglect

Their own mothers or a substitute mother under the guidance of a head nurse cared for Spitz's Prison nursery sample of infants 4 to 12 months of age (n = 61). These children were rated "MILD" for emotional neglect.

Social Neglect

Caregiver presence. The Prison nursery sample was in the presence of a caregiver during the hours they were awake. These children were rated "MODERATE" for caregiver presence.

Caregiver-to-child ratio. Children in this sample experienced a "VERY MILD" ratio of 1:1.

Findings

This sample attained average scores on general development, body mastery, language, and motor development.

Tizard Cooperman, Joseph, & Tizard's (1972) Institutionally Reared High Caregiver Autonomy Sample (England)

(Total for Tizard, Cooperman, Joseph, & Tizard, 1972 n = 85)

Description

Emotional Neglect

Tizard's high autonomy sample received care from multiple caregivers in an environment where emotional relationships were discouraged. However, Tizard claims that the high level of flexibility the caregivers were given by the administration allowed for more individual exchanges with the children. As a result, these children were rated "MILD" for emotional neglect.

Social Neglect

Caregiver presence. Tizard reported that this sample was in the presence of a caregiver during the hours they were awake. These children were rated "MODERATE" for caregiver presence.

Caregiver-to-child ratio. Children in this sample experienced a "MILD" ratio of 1:2.5-1:3.

Measures

1. Naturalistic Observations
2. Raynell Developmental Language Scales (Raynell, 1969)
3. Minnesota Preschool Scale (nonverbal scale)

Findings

Children in this sample attained normal language development and higher language comprehension scores than Tizard's samples with higher emotional neglect.

SAMPLES IN WHICH EMOTIONAL NEGLECT WAS RATED "MODERATE"

Smyke, Dumitrescu, & Zeanah (2002) Pilot Unit (Romania)

Description

Emotional Neglect

Smyke's pilot unit sample, which ranged between 18 to 70 months of age (n = 29), received care in an environment where emotional relationships were discouraged. However, the children received more opportunities to develop relationships with caregivers because they were consistently cared for by a small number of caregivers. As a result, emotional neglect was rated "MODERATE".

Social Neglect

Caregiver presence. Smyke reported that this sample was in the presence of a caregiver during the hours they were awake. These children were rated "MODERATE" for caregiver presence.

Caregiver-to-child ratio. Children in this sample experienced a "MILD" ratio of 1:2.5-1:3.

Measures

1. Disturbance of Attachment Interview (DAI) (Smyke & Zeanah, 1999)
2. Child behavior information interview

Findings

Children in this sample attained normal language development. Sample displayed fewer inhibited withdrawn attachments and indiscriminant RAD than sample in standard care. This sample scored similarly to home-reared children on RAD inhibited/withdrawn behaviors. Almost all of the children in this sample had a preferred caregiver.

Tizard et al.'s (1972) Institutionally Reared Middle Caregiver Autonomy Sample (England)

Description

Emotional Neglect

Tizard's middle autonomy sample received care from multiple caregivers in an environment where emotional relationships were discouraged. However, Tizard claims that the moderate level of flexibility the caregivers were given by the administration allowed for more individual exchanges with the children than usual but fewer than in the high autonomy sample. As a result, these children were rated "MODERATE" for emotional neglect.

Social Neglect

Caregiver presence. Tizard reported that this sample was in the presence of a caregiver during the hours they were awake. These children were rated "MODERATE" for caregiver presence.

Caregiver-to-child ratio. Children in this sample experienced a "MILD" ratio of 1:2.5-1:3.

Measures

1. Naturalistic Observations
2. Raynell Developmental Language Scales (Raynell, 1969)
3. Minnesota Preschool Scale (nonverbal scale)

Findings

This sample attained normal language development.

SAMPLES IN WHICH EMOTIONAL NEGLECT WAS RATED "SEVERE"

Provence and Lipton's (1962) Institutionally Reared Sample (England)

Description

Emotional Neglect

Provence and Lipton's sample of children 3 – 12 months of age (n not provided) received care from multiple caregivers in an environment where emotional relationships were discouraged. As a result, these children were rated "SEVERE" for emotional neglect.

Social Neglect

Caregiver presence. Infants in this sample were in the presence of a caregiver for eight hours each weekday without much care on weekends. As a result, this sample was rated "SEVERE" for caregiver presence.

Caregiver-to-child ratio. Infants in this sample experienced a "SEVERE" ratio of 1:5-1:7.

Measures

1. Gesell Developmental Examination
2. Hetzer-Wolf Baby Test
3. Physical examinations
4. Naturalistic observations
5. Non-standardized caregiver interviews

Findings

This sample demonstrated delays in motor and language development and differences from home-reared children's' expectations for their caregivers.

Tizard and Joseph's (1970) Institutionalized Sample (England)

Description

Emotional Neglect

Tizard and Joseph's sample of children two years of age (n = 30) received care from multiple caregivers in an environment where emotional relationships were discouraged. As a result, this sample was rated "SEVERE" for emotional neglect.

Social Neglect

Caregiver presence. Tizard reported that this sample was in the presence of a caregiver during the hours they were awake. These children were rated "MODERATE" for caregiver presence.

Caregiver-to-child ratio. Children in this sample experienced a "MILD" ratio of 1:3-1:4.

Measures

1. An adaptation of Rheingold and Bayley's (1959) scale for infants
2. An observation of the children's reaction to the caregiver leaving the room

Findings

Tizard reported that this sample was less friendly than home-reared children and demonstrated extreme responses to separations from caregivers. They were also delayed by two months in their mental developments, mostly in verbal skills.

Tizard and Tizard's (1971) Institutionalized Sample (England)

Description

Emotional Neglect

Tizard and Tizard's sample of children two years of age (n = 30) received care from multiple caregivers in an environment where emotional relationships were discouraged. As a result, this sample was rated "SEVERE" for emotional neglect.

Social Neglect

Caregiver presence. Tizard reported that this sample was in the presence of a caregiver during the hours they were awake. These children were rated "MODERATE" for caregiver presence.

Caregiver-to-child ratio. Children in this sample experienced a "MILD" ratio of 1:2.5-1:3.

Measures

1. An adaptation of Rheingold and Bayley's (1959) scale for infants
2. An observation of the children's reaction to the caregiver leaving the room
3. An adaptation of Schaffer and Emmerson (1964) scale for infants
4. Non-standardized interviews with caregivers

Findings

Tizard reported that this sample was less friendly than home-reared children and demonstrated extreme responses to separations from caregivers. The children also demonstrated multiple shallow attachments to caregivers.

Smyke, Dumitrescu, & Zeanah's (2002) Standard Institutional Care Sample (Rornania)

Description

Emotional Neglect

Smyke et al.'s (2002) standard institutional care sample of children, who ranged between 18 to 70 months of age (n = 32), received care from multiple caregivers in an environment where emotional relationships were discouraged. As a result, this sample was rated "SEVERE" for emotional neglect.

Social Neglect

Caregiver presence. Smyke et al. reported that this sample was in the presence of a caregiver during the hours they were awake. This sample was rated "MODERATE" for caregiver presence.

Caregiver-to-child ratio. Children in this sample experienced a ratio of 1:10, which was rated "MODERATE" for children whose average age was over three years.

Findings

Children in this sample demonstrated inhibited withdrawn attachments and indiscriminant friendliness, indiscriminant RAD. Only half displayed a preference for a particular caregiver. They did not have delays in language development.

Tizard et al.'s (1972) Institutionally Reared Low Caregiver Autonomy Sample (England)

Description

Emotional Neglect

Tizard's low autonomy sample received care from multiple caregivers in an environment in an environment where emotional relationships were discouraged. Additionally, Tizard claimed that the low level of flexibility the caregivers were given by the administration allowed for less individual exchanges with the children than the higher autonomy samples. As a result, these children were rated "SEVERE" for emotional neglect.

Social Neglect

Caregiver presence. Tizard reported that this sample was in the presence of a caregiver during the hours they were awake. These children were rated "MODERATE" for caregiver presence.

Caregiver-to-child ratio. Children in this sample experienced a "MILD" ratio of 1:2.5-1:3.

Measures

1. Naturalistic Observations
2. Raynell Developmental Language Scales (Raynell, 1969)
3. Minnesota Preschool Scale (nonverbal scale)

Findings

This sample demonstrated delays in language comprehension. However, their language development was normal.

Tizard and Rees (1994; 1975) Institutional Sample (England)

Description

Emotional Neglect

Tizard and Rees' sample of children 4 ½ years of age (n =25) received care from multiple caregivers in an environment where emotional relationships were discouraged. As a result, these children were rated "SEVERE" for emotional neglect.

Social Neglect

Caregiver presence. Tizard reported that this sample was in the presence of a caregiver during the hours they were awake. These children were rated "MODERATE" for caregiver presence.

Caregiver-to-child ratio. Children in this sample experienced a "MILD" ratio of 1:2.5-1:3.

Measures

1. Attachment questionnaire (Tizard & Tizard, 1971)
2. Caregiver interview questions taken from Richman and Graham (1971), Newson and Newson (1968), and from Caldwell's Inventory of Home Stimulation (1966)

Findings

This sample displayed attention seeking behaviors, poor concentration, peer problems, temper tantrums, clinging to caregivers, following behaviors, and thumb sucking. However, cognitively they appeared to be similar to home-reared children scoring average on intelligence tests and language development.

Tizard and Hodges (1978) Institutional Sample (England)

Description

Emotional Neglect

Tizard and Hodges' sample of children eight years of age (n = 28) received care from multiple caregivers in an environment where emotional relationships were discouraged. As a result, these children were rated "SEVERE" for emotional neglect.

Social Neglect

Caregiver presence. Tizard reported that this sample was in the presence of a caregiver during the hours they were awake. These children were rated "MODERATE" for caregiver presence.

Caregiver-to-child ratio. Children in this sample experienced a "MILD" ratio of 1:2.5-1:3.

Measures

1. WISC I.Q. (Wechsler, 1949)
2. Neale Reading tests (Neale, 1966)
3. Observational ratings scales (Tizard & Tees, 1974; Rutter & Graham, 1968)
4. Rutter Parent and Teacher Questionnaires (Rutter et al., 1970)

Findings

Tizard and Hodges (1978) reported children in this sample scored average I.Q. scores when compared with a home-reared sample. Indiscriminant friendliness demonstrated by this sample at previous assessments appears to have persisted although symptoms were diminished. Tizard and Hodges also found that 57% of children in this sample were "closely" attached to their caregivers. This sample also

demonstrated socio-emotional problems not found in home-reared children demonstrated through their higher scores on anti-social scales and attention seeking behaviors.

Vorria et al.'s (1998) Institutional Sample (Greece)

Description

Emotional Neglect

Vorria's sample of children, 9 and 11 years of age (n = 41), received "en bloc" treatment without much individualized care. As a result, this sample was rated "SEVERE" for emotional neglect.

Social Neglect

Caregiver presence. Vorria reported that this sample was in the presence of a caregiver during the hours they were awake. These children were rated "MODERATE" for caregiver presence.

Caregiver-to-child ratio. Children in this sample experienced a "VERY SEVERE" ratio of 1:15-1:27.

Measures

1. Children's Behavior Questionnaire, Parent (A2) and Teacher (B2) (Elander & Rutter, 1996; Rutter, 1967; Rutter , Tizard, & Whitmore, 1970)
2. Teacher questionnaire based on Tizard and Hodges (1978)
3. School Reports
4. Case Records
5. Classroom observations (naturalistic)

Findings

Children in this sample demonstrated health problems, oppositional, aggressive, and antisocial behaviors, emotion and conduct problems, poor quality peer relationships, indiscriminant friendliness, worries, fear, depression, and hyperactivity.

Sloutsky's (1997) Institutional Sample (Moscow, Russia)

Description

Emotional Neglect

Sloutsky's sample of children five to seven years of age (n = 52) received care from multiple caregivers in an environment where emotional relationships were strongly discouraged. Sloutsky also remarked on this sample's strong emphasis on the institutional culture, which further heightened the lack of individualized care children received. As a result, this sample was rated "SEVERE" for emotional neglect.

Social Neglect

Caregiver presence. Sloutsky reported that children in this sample were "not alone much." Therefore this sample was rated "MILD" for caregiver presence.

Caregiver-to-child ratio. Children in this sample experienced a "MODERATE" ratio of 1:7.5 – 1:10.

Measures

1. Russian Adaptation of the Wechsler Intelligence Scales for Children (Wechsler, 1949)
2. Method for the Study of Empathy (designed for the study)
3. Method for the Study of Conformity (designed for the study)

Findings

Children in this sample demonstrated delays in their intelligence and were less able to identify emotions in others (i.e., anger, love, fear, and joy) than home-reared children. They also conformed to adults' beliefs more often than home-reared children.

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* Indicates source of measures used in studies reviewed in this paper.

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